

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MICHAEL SMITH,
DAVID DIFFOR
and ROBERT MILLER

Appeal 2007-3968
Application 09/309,396
Technology Center 1700

Decided: December 14, 2007

Before EDWARD C. KIMLIN, CHUNG K. PAK, and
CHARLES F. WARREN, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2, and 12-16. Claims 3-11 and 17-19 stand withdrawn from consideration. Claim 1 is illustrative:

1. An enriched alpha-acid hop extract product free of organic solvent and formed from a carbon dioxide extraction of whole hops, the enriched alpha-acid hop extract product having:

an alpha-acids concentration supplemented by the addition of purified alpha-acids, the resultant alpha-acids concentration greater than 60% by weight;

a total beta-acids concentration of less than 20% by weight; and

a total hop essential oils concentration in excess of 1% by weight.

In addition to the admitted prior art found in Appellants' Specification, the Examiner relies upon the following references as evidence of obviousness:

Hildebrand	3,298,835	Jan. 17, 1967
Laws ('895)	4,212,895	Jul. 15, 1980
Laws ('491)	4,218,491	Aug. 19, 1980
Sharpe	4,344,978	Aug. 17, 1982

Appellants' claimed invention is directed to an enriched alpha-acid hop extract product that is free of organic solvent. The product has an alpha-acids concentration of greater than 60%, a beta-acids concentration of less than 20% and a total hop essential oils concentration in excess of 1%.

Appealed claims 1, 2, and 12-16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Laws '895 or Laws '491 in view of the admitted prior art, particularly Sharpe and Hildebrand.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art.

Accordingly, we will sustain the Examiner's rejection for the reasons set forth in the Answer, which we incorporate herein, and we add the following primarily for emphasis.

There is no dispute that Laws '895 and Laws '491 disclose a hop extract product comprising alpha-acids, beta-acids, and total hop essential oils in concentrations that are much like those presently claimed. For instance, Laws '895 discloses a product with 60-80% alpha-acids, 0.3-0.5 beta-acids and 1% essential oils. Hence, the amounts of alpha-acids and beta-acids of Law '895 fall directly within the claimed ranges, and an amount of essential oils, 1%, nearly touches the claimed range of in excess of 1%. Likewise, Law's '491 teaches amounts for the three components that either fail within the claimed ranges or nearly touch them, e.g., 75% alpha-acids, up to 10% essential oils, and 20% beta-acids. Consequently, the appealed claims encompass extract products that differ from Laws '895 by a fraction of a percent in essential oils concentration, and from Laws '491 by a fraction of a percent in beta-acids concentration, namely, 0.1%.

It is well settled that where patentability is predicated upon a change in a condition of a prior art composition, such as a change in concentration or the like, the burden is on the applicant to establish with objective evidence that the change is critical, i.e., it leads to a new, unexpected result. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Ranier*, 377 F.2d 1006, 1010 (CCPA 1967); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955). In the present case, the Examiner has demonstrated that hop extract products within the scope of the appealed claims are fairly taught by Laws

'895 and Laws '491, and Appellants have not established on this record that the slight variations in either essential oils concentration or beta-acids concentration produces an unexpected result. While Appellants' Brief makes reference to the Specification for an indication of criticality of the claimed ranges and storage benefits of the enriched bittering product, Appellants have not presented the requisite explanation and analysis of objective data to satisfy their burden of demonstrating that compositions of hop extract products within the scope of the appealed claims are unexpectedly superior to the hop extract products fairly disclosed by Laws '895 and Laws '491. The burden of showing unexpected results rests on the party asserting them, *In re Klosak*, 455 F.2d 1077, 1080 (CCPA 1972), and it must be demonstrated that the results offered would be considered truly unexpected by one of ordinary skill in the art. *In re Merck & Co.*, 800 F.2d 1091, 1099 (Fed. Cir. 1986). Manifestly, it is not within the province of this Board to independently analyze Specification evidence and ferret out results that support Appellants' position. *In re Geisler*, 116 F.3d 1465, 1469-70 (Fed. Cir. 1997; *Ex parte Gelles*, 22 USPQ2d 1318, 1319-20 (BPAI 1992).

Appellants present many arguments that are directed to the **process** of making the claimed hop extract product that are not germane to the **product** that is presently claimed. While the appealed claims contain language that is product-by-process in nature, it is by now axiomatic that the patentability of a product does not depend on its method of production. *In re Pilkington*, 411 F.2d 1345, 1348 (CCPA 1969); *In re Brown*, 459 F.2d 531, 535 (CCPA 1972). For instance, Appellants point out that Laws '895 and Laws '491 do

not teach blending, mixing or supplementing the extract product with another extraction product. However, since both references teach compositions for the final product that are much like the claimed product, it is reasonable to conclude that the method of preparation is of no moment with respect to the essential nature of the final product. Significantly, Appellants have not proffered objective evidence that establishes that compositions within the scope of the appealed claims, due to their method of preparation, are somehow substantially different than compositions fairly taught by the two references. Although Appellants contend that "there is nothing in the prior art of record that teaches dilution of purified hop extracts with whole hop extract to achieve a higher quality, consistent product having improved handling and storage characteristics" (Br. 9, last para.), Appellants' argument lacks evidentiary support. Whether or not the references teach or suggest the inclusion of purified alpha-acids, the fact remains that the references disclose hop extract products having the claimed concentration of alpha-acids. Appellants' argument that they are not merely claiming a purified product, "but a mixture of two heretofore uncombined product streams," is directed to a **process** limitation (Br., sentence bridging pages 17-18). Likewise, Appellants' argument that "there is nothing in the prior art of record that teaches dilution of purified hop extracts with a whole hop extract ..." is directed to a **process** limitation that is not commensurate in scope with the degree of protection sought by the appealed claims (Br. 18, second para.).

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(effective Sept. 13, 2004).

AFFIRMED

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